

**CLAIMS**

What is claimed is:

1           1.     A cache, comprising:  
2           a plurality of ways to store cache lines, each way to include a  
3     valid flag and a victim flag; and  
4           a control logic to make true a first victim flag of a first one of said  
5     ways when none of said valid flags is false.

1           2.     The cache of claim 1, wherein said control logic is to make  
2     false said first victim flag of said first one of said ways when an inner  
3     cache to said cache requests a cache line of said first one of said ways.

1           3.     The cache of claim 2, wherein said control logic is to make  
2     true a second victim flag of a second one of said ways and send said  
3     cache line to said inner cache.

1           4.     The cache of claim 1, wherein said control logic is to  
2     overwrite contents of said first one of said ways when said first victim  
3     flag is true.

1           5.     The cache of claim 1, wherein said victim flag is an encoded  
2     number of one of said ways within a set.

1           6.     The cache of claim 1, wherein said victim flag is a decoded  
2     bit associated with one of said ways.

1           7.     The cache of claim 1, wherein said valid flag is encoded in a  
2 coherency field associated with one of said ways.

1           8.     The cache of claim 1, wherein said valid flag is a decoded  
2 bit associated with one of said ways.

1           9.     A method, comprising:  
2           selecting a first victim cache line from a set of cache lines within a  
3 set of ways in an outer cache;  
4           making true a first victim flag for said first victim cache line in a  
5 first one of said set of ways; and  
6           overwriting said first victim cache line in said first one of said set  
7 of ways.

1           10.    The method of claim 9, further comprising invalidating said  
2 first victim cache line in an inner cache.

1           11.    The method of claim 9, further comprising requesting said  
2 first victim cache line from an inner cache and making false said first  
3 victim flag.

1           12.    The method of claim 11, further comprising sending said  
2 first victim cache line to said inner cache and selecting a second victim  
3 cache line in a second one of said set of ways.

1           13. The method of claim 12, further comprising making true a  
2 second victim flag for said second victim cache line in said second one  
3 of said set of ways responsive to a determination that no cache line in  
4 said set of ways is invalid.

1           14. A system, comprising:  
2 a cache including a plurality of ways to store cache lines, each  
3 way to include a valid flag and a victim flag, and a control logic to make  
4 true a first victim flag of a first one of said ways when none of said valid  
5 flags is false;  
6 a memory interface to connect said cache with a memory;  
7 a first bus;  
8 an input/output bus; and  
9 an audio input/output device coupled to said input/output bus  
10 to send data to said memory via said first bus and said memory  
11 interface.

1           15. The system of claim 14, wherein said control logic is to  
2 make false said first victim flag of said first one of said ways when an  
3 inner cache to said cache requests a cache line of said first one of said  
4 ways.

1           16. The system of claim 15, wherein said control logic is to  
2 make true a second victim flag of a second one of said ways and send  
3 said cache line to said inner cache.

1           17.   The system of claim 14, wherein said control logic is to  
2   overwrite contents of said first one of said ways when said first victim  
3   flag is true.

1           18.   A cache, comprising:  
2           means for selecting a first victim cache line from a set of cache  
3   lines within a set of ways in an outer cache;  
4           means for making true a first victim flag for said first victim cache  
5   line in a first one of said set of ways; and  
6           means for overwriting said first victim cache line in said first one  
7   of said set of ways.

1           19.   The cache of claim 18, further comprising means for  
2   invalidating said first victim cache line in an inner cache.

1           20.   The cache of claim 18, further comprising means for  
2   requesting said first victim cache line from an inner cache and means  
3   for making false said first victim flag.

1           21.   The cache of claim 20, further comprising means for  
2   sending said first victim cache line to said inner cache and means for  
3   selecting a second victim cache line in a second one of said set of ways.

1           22.   The cache of claim 21, further comprising means for  
2   making true a second victim flag for said second victim cache line in  
3   said second one of said set of ways responsive to a determination that  
4   no cache line in said set of ways is invalid.